

CLAIMS

What is claimed is:

5 1. A high density magnetic recording medium, which has a uniform local coercivity distribution and grain size distribution, and fine grains, comprising:

 a CoCrPt alloy thin film including the $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy thin film containing 1 to 14 atom% Pt; and

10 a Ti thin film positioned under the $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy thin film.

 2. The high density magnetic recording medium as set forth in claim 1, wherein the $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy thin film and the
15 Ti thin film are respectively 400 and 1100 Å in thickness.

 3. A high density magnetic recording medium using a CoCrPt alloy thin film, which has a uniform local coercivity distribution and grain size distribution, and fine grains,
20 comprising:

 a glass substrate;

 a Ti thin film layered on the glass substrate;

 a $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy thin film containing 1 to 14 atom% Pt and deposited on the Ti thin film; and

25 a Si_3N_4 thin film deposited on the $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy

thin film.

4. The high density magnetic recording medium as set forth in claim 3, wherein the $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$ alloy thin film, the Ti
5 thin film, and the Si_3N_4 thin film are respectively 400, 1100, and 500 Å in thickness.

5. A method of manufacturing a high density magnetic recording medium which has a uniform local coercivity
10 distribution and grain size distribution, and fine grains, comprising:

a first step of layering a Ti thin film on a glass substrate;

a second step of depositing a CoCrPt alloy thin film on
15 the Ti thin film, the CoCrPt alloy thin film containing a predetermined composition of Pt controlled by a CoCr alloy target having a Pt chip positioned thereon; and

a third step of depositing Si_3N_4 on the CoCrPt alloy thin film.

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6. The method as set forth in claim 5, wherein the second step is conducted under sputtering pressure of 3 mtorr at room temperature, and the CoCrPt alloy thin film is deposited on the Ti thin film in a deposition rate of 14 Å/s.